ABSTRACT

A programming system includes a graphical data entry user interface for a plurality of sequential steps displayed to a user on a monitor. The user selects outputs to be activated for each of the sequential steps and any inputs to be monitored or timer to be enabled for the sequential steps. The inputs, outputs, and timer enable commands, and timer values identified by the user are converted into data tables each having a plurality of data elements. Each data element corresponds to one of the sequential steps. A programmable logic controller directs a process by reading the data elements corresponding to a sequential step and, for that sequential step, activating the outputs identified by the output data element, monitoring any inputs identified by the input control data element, and enabling a timer for a selected time period if identified in the input control data element.